Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

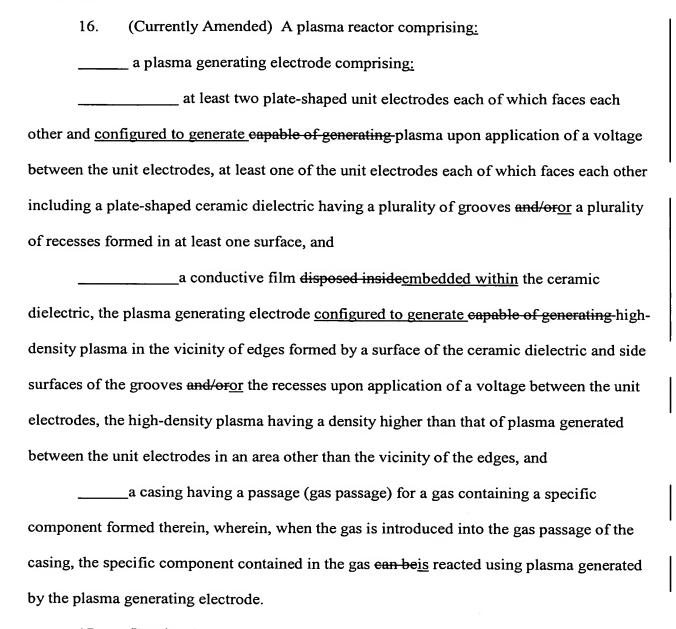
- 1 11. (Canceled)
- 12. (Currently Amended) A plasma generating electrode comprising:

at least two plate-shaped unit electrodes each of which faces each other and eapable of generatingconfigured to generate plasma upon application of a voltage between the unit electrodes, at least one of the unit electrodes each of which faces each other including a plate-shaped ceramic dielectric having a plurality of grooves and/oror a plurality of recesses formed in at least one surface, and

_____ a conductive film disposed insideembedded within the ceramic dielectric, the plasma generating electrode configured to generate eapable of generating high-density plasma in the vicinity of edges formed by a surface of the ceramic dielectric and side surfaces of the grooves and/oror the recesses upon application of a voltage between the unit electrodes, the high-density plasma having a density higher than that of plasma generated between the unit electrodes in an area other than the vicinity of the edges.

- 13. (Currently Amended) The plasma generating electrode according to claim 12, wherein the grooves and/oror the recesses are formed in an area corresponding to 20 to 80% of an area of the surface of the ceramic dielectric, and assuming that the surface forms a continuous plane.
- 14. (Currently Amended) The plasma generating electrode according to claim 12, wherein each of the grooves and/oror the recesses has a thickness from the surface of the ceramic dielectric to a bottom of the groove and/oror the recess of 3 to 200 μm.
- 15. (Currently Amended) The plasma generating electrode according to claim 12, wherein each of the grooves and/oror the recesses has a thickness from the surface of the

ceramic dielectric to a bottom of the groove and/oror the recess of 1/3 or less of an average thickness of the ceramic dielectric.



- 17. (Previously Presented) The plasma reactor according to claim 16, further comprising a pulsed power supply for applying a voltage to the plasma generating electrode.
- 18. (Previously Presented) The plasma reactor according to claim 17, wherein the pulsed power supply includes at least one SI thyristor.

19-22. (Canceled)

- 23. (New) The plasma generating electrode according to claim 12, wherein at least one of the two plate-shaped unit electrodes has grooves and/or recesses on both surfaces of the plate-shaped ceramic dielectric.
- 24. (New) The plasma reactor according to claim 16, wherein at least one of the two plate-shaped unit electrodes has grooves and/or recesses on both surfaces of the plate-shaped ceramic dielectric.